

PATENT COOPERATION TREATY

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From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2004/004465

International filing date (day/month/year)
22.11.2004

Priority date (day/month/year)
26.11.2003

International Patent Classification (IPC) or both national classification and IPC
INV. F41H1/02 F41H5/04

Applicant
HARDING, Montgomery, G.B.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/004465

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2004/004465

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4-5, 8, 11, 13-16
	No: Claims	1-3, 6-7, 9-10, 12
Inventive step (IS)	Yes: Claims	
	No: Claims	1-16
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

- 1 The following objections will be raised in the present communication:

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-3, 6-7, 9-10 and 12 is not new in the sense of Article 33(2) PCT.

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 4-5, 8, 11 and 13-16 does not involve an inventive step in the sense of Article 33(3) PCT.

- 2 Reference is made to the following documents:

D1: US5736474 A

D2: US4186648 A

D3: GB1081464 A

D4: US5591933 A

D5: US2002/0034624 A

- 3 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent claim 1 is not new in the sense of Article 33(2) PCT.

The document D1 discloses (the references in parentheses applying to this document) a multi-layered material having at least an inner layer (20) and an outer layer (18) of woven cloth of plastic fibers (col.6, l.53-55) and a middle layer (22), the middle layer (22) comprising pellets in a matrix of a loose array of randomly oriented fibers or a loose array of parallel oriented fibers (col.6, l.53-64; col.7, l.55-62; fig.1), said layers (18,20,22) being bound together transversely.

D2 also discloses such a multi-layered material (col.3, l.28-40; col.5, l.15-59; fig.1-5).

- 4 Dependent claims 2-13 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step, the reasons being as follows:
- 4.1 The features of dependent claim 2 are known from D1 (fig.1).
- 4.2 The features of dependent claim 3 are known from D2 (fig.1-5).
- 4.3 The features of dependent claims 4-5 are merely some of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, see for instance D1 (fig.1) and D2 (fig.1-5).
- 4.4 The features of dependent claims 6-7 are known from D1 (col.1, l.15-57; col.3, l.33-34; col.6, l.20-21).
- 4.5 The features of dependent claim 8 are suggested by D3 (p.2, l.59-71).
- 4.6 The features of dependent claims 9-10 are known from D1 (col.6, l.20-21; col.8, l.24-27; col.10, l.35-40; fig.1)
- 4.7 The features of dependent claim 11 are suggested by D4 (fig.1-4).
- 4.8 The features of dependent claim 12 are implicitly known from D1.
- 4.9 The features of dependent claim 13 are suggested by D5 (abstract; par.34; fig.1,1A).
- 5 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent claim 14 does not involve an inventive step in the sense of Article 33(3) PCT.
- 5.1 The document D1 is regarded as being the closest prior art to the subject-matter of independent claim 14, and discloses (the references in parentheses applying to this document) a method for forming the matrix of claim 10 (col.6, l.53-64; col.7, l.55-62;

fig.1).

- 5.2 The subject-matter of independent claim 14 therefore differs from this known method in that the pellets and fibers are mixed into a solution of curable silicone compound and poured into a form to create a thin layer upon curing.
- 5.3 The problem to be solved by the present invention may therefore be regarded as forming a solid continuum with fibers, pellets and matrix material.
- 5.4 This feature is merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed, see for instance D5 (par.55).
- 5.5 The solution proposed in independent claim 14 of the present application can therefore not be considered as involving an inventive step (Article 33(3) PCT).
- 6 Dependent claim 15 does not contain any features which, in combination with the features of any claim to which it refers, meet the requirements of the PCT in respect of inventive step, the reasons being as follows:

The feature of dependent claim 15 resides in the choice of particular parameters from a limited range of possibilities and it is clear that these parameters could be arrived at by routine trial and error or by the application of normal design procedures.

- 7 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent claim 16 does not involve an inventive step in the sense of Article 33(3) PCT.

The features of independent claim 16 are suggested by the combination of D1 and D2 (see points 3, 4.1-4.4, 4.6 and 4.7 of the present communication).